

On Friday morning, February 1st 2008, there was a conference call with EPA Project Manager Tim Drexler, concerning the Yard 520 Remedial Investigation. The conference call included Jan Nona, Mark Huston & Chuck Norris of Geo-Hydro, Larry Jensen who is an expert in radionuclide, Kim Ferraro the NW Regional President of HEC, and myself. There were several issues that were discussed concerning the closing stages of the Remedial Investigation.

Larry Jensen explained to Tim that he had concerns about the level of radiation that is being accepted as a natural background for the Pines Area of Investigation. Based upon evidence and reasoning, Tim Drexler agreed to a 30-day extension for completion of the Remedial Investigation to perform soil testing from samples that have been already been collected from within the area of investigation. Larry Jensen pointed out that the sandy soil in the Pines Area of Investigation has a lower level of natural radiation than other areas. He also noted that he found data deviations of soil samples for radioisotopes. He noted that uranium 238, uranium 234, and radium 226 seemed to deviate from the detected polonium levels.

We asked about the probable flyash fill at Exempti... and the Islamic Center, and if the end of the Remedial Investigation would preclude testing those areas that are outside the Area of Investigation. He said that the final Remedial Investigation document would allow for uncertainty and leave open the prospect for further investigation. He also said that examination of data might show that there are multiple groundwater plumes, and if they are a risk to human health they will be addressed.

Tim Drexler also answered several other questions.

Q: How can a natural background level for chemicals of potential concern be established if it is based on soil samples taken from areas that are probably contaminated? For example, since arsenic is a contaminant in flyash, wouldn't there be an unnaturally high level of arsenic throughout the entire area of investigation left over from dust blown off delivery trucks and from uncovered piles of flyash? Furthermore, wouldn't that arsenic have leached into the groundwater and flowed throughout the Area of Investigation? While this contamination might not be at a high level everywhere, wouldn't it skew the natural background measurements against which actual contamination would be measured?

A: Tim responded that he was present at many of the background samplings and he is confident that they were conducted correctly and that they were collected far enough away from any possible contamination.

Q: It is perceived that this Remedial Investigation is more complicated than other superfund remedial investigations and that there are more adjustment factors that restrict contaminants from being considered risks to human health.

A: This is not more complicated than other Remedial Investigations.

Q: Why does the Remedial Investigation for the East Chicago Indiana Harbor and Ship Canal Confined Disposal Facility use a meteorological factor of 350 days that a person living or working near that disposal facility might be exposed to pollutants, whereas Remedial Investigation for the Pines Area of Investigation uses a meteorological factor of only 250 days that a resident may be exposed? Why such a large difference when the climate is identical?

A: Tim was not involved in the Indiana Harbor Remedial Investigation and couldn't say why they used that number.

Q: Why does the Pines Area of Investigation Remedial Investigation use "Surface Area and Soil to Skin Adherence Factors?" Are there other Remedial Investigations that include this in calculations? The Pines Area of Investigation Remedial Investigation assumes that a child has a smaller surface area and will therefore be less exposed to contamination than an adult. Shouldn't the risk to a child be greater because while they are growing, they absorb more chemicals and minerals than a grown adult?

A: Dermal contact is a small factor in absorbing contaminants. Inhalation and ingestion are the main pathways for contaminants into a human body.